

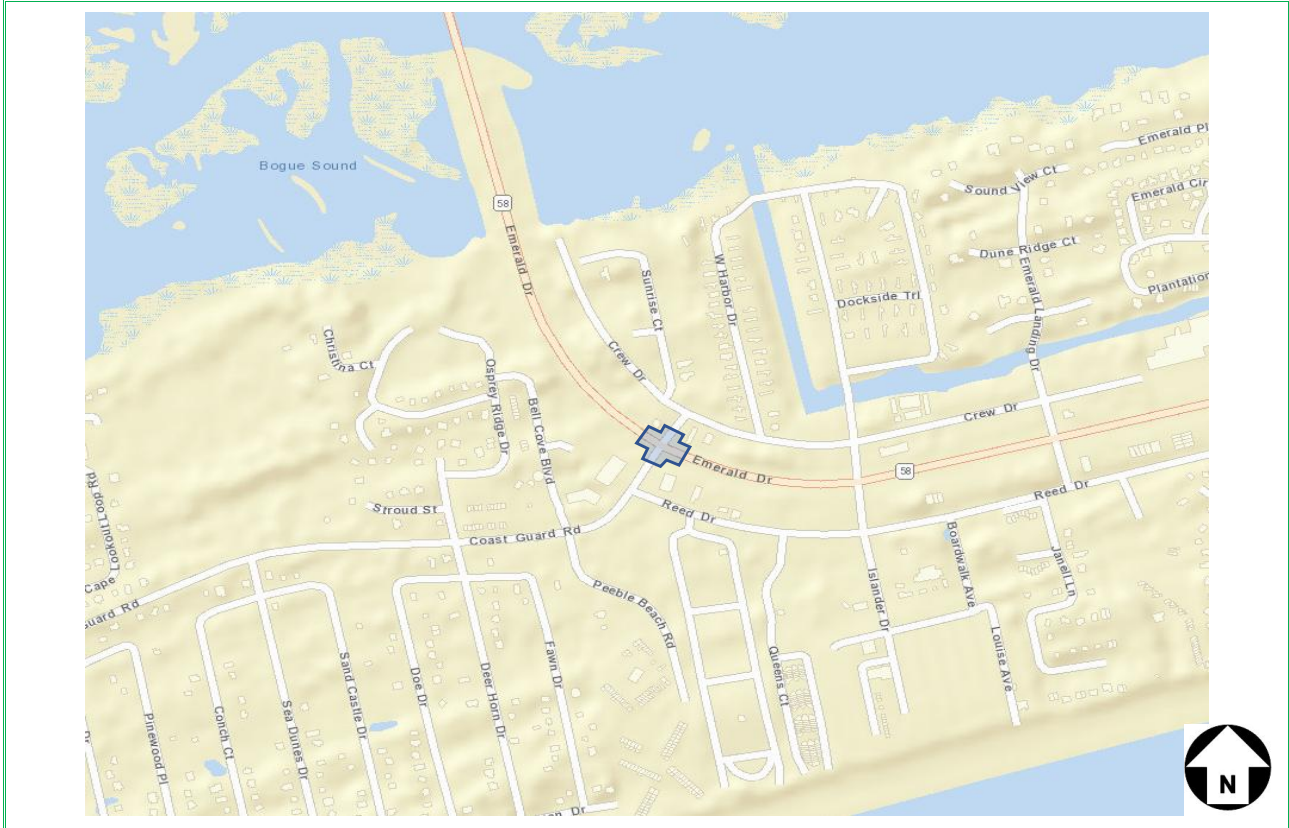
Preliminary – Do Not Use for Construction



SPOT Travel Time Savings Report

NC 58 (Emerald Drive) at Coast Guard Road
10 - Improve Intersection

STIP No. R-5886 SPOT ID: H250715 WBS No. 34263.1.1 Carteret DIVISION: 2
12/18/2025 Kimley-Horn



ID	Road Name	External	2025 AADT	2035 AADT
01N	Coast Guard Road	Yes	2,100	2,300
01E	NC 58 (Emerald Drive)	Yes	14,500	14,900
01S	Coast Guard Road	Yes	6,300	7,000
01W	NC 58 (Emerald Drive)	Yes	17,500	17,900

2025 AM Peak Travel Time Saving	7
2025 PM Peak Travel Time Saving	7
2025 Total Daily Vehicles	20,200
2025 Daily Travel Time Savings	31.3
2035 AM Peak Travel Time Saving	7
2035 PM Peak Travel Time Saving	8
2035 Total Daily Vehicles	21,050
2035 Daily Travel Time Savings	34.1
Days per Year	260
Travel Time Savings Duration	10 Years

Existing Congestion Level	Non-Congested
Daily Savings Conversion Factor	2.25

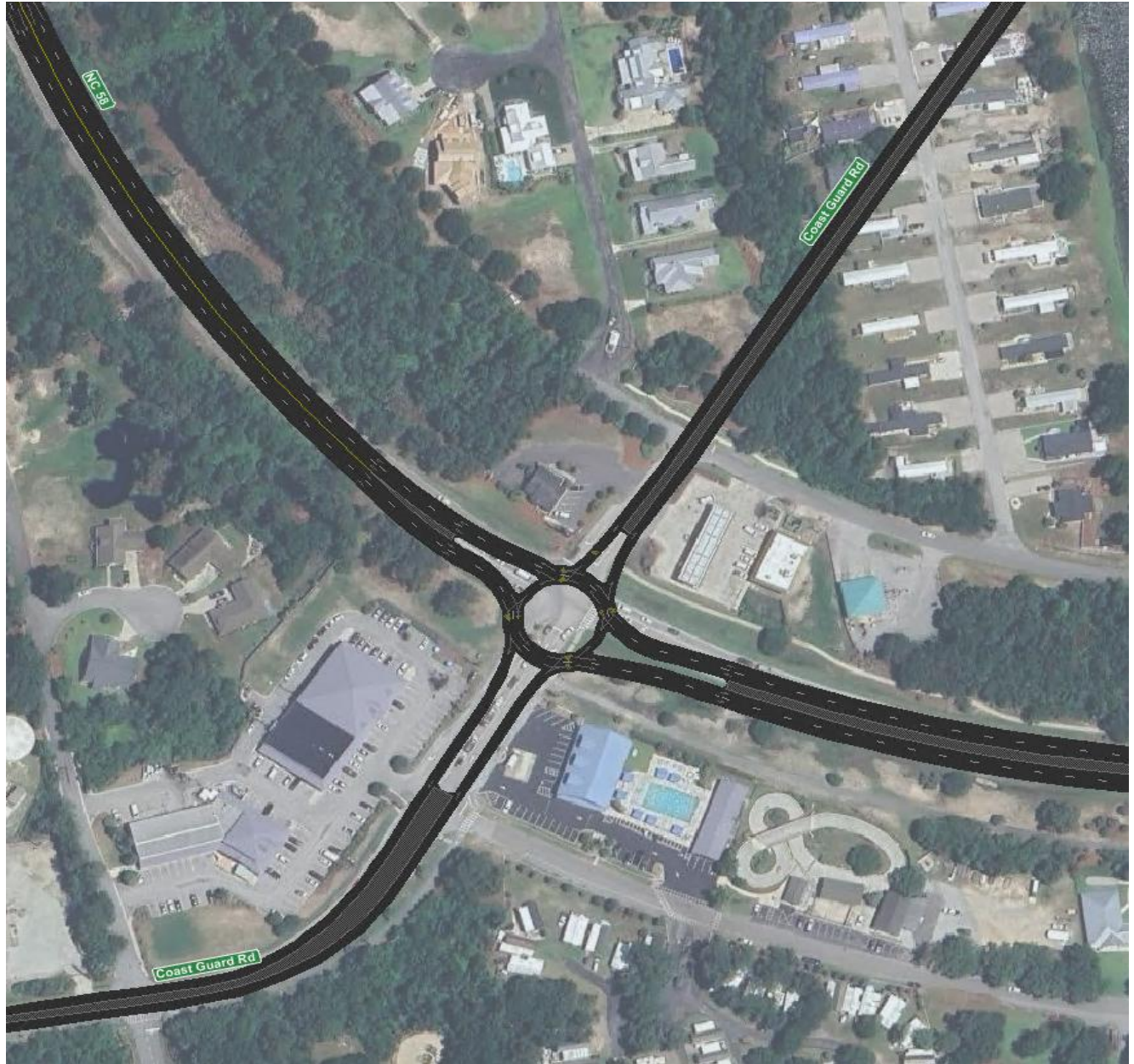
10-year Travel Time Savings			
85,000 hours			
Travel Time Savings Per Vehicle			
2025	6 sec/veh	2035	6 sec/veh

Description of Proposed Design

Construct 2x1 Roundabout



<p>Figure 1</p>	<p>Existing Conditions</p>	<p>SHEET 1 OF 2</p>
<p><u>LEGEND</u></p>	<p>TIP: R-5886</p>	<p>WBS: 34263.1.1</p>
<p>COUNTY: Carteret</p>	<p>DIVISION: 2</p>	
<p>DATE: December 18, 2025</p>		
<p>PREPARED BY: Kimley-Horn</p>		
<p>LOCATION: NC 58 (Emerald Drive) at Coast Guard Road</p>		
<p>PROJECT: 10 - Improve Intersection</p>		



Construct 2x1 Roundabout

<p>Figure 2</p>	<p>Proposed Design</p>	<p>SHEET 2 OF 2</p>
<p><u>LEGEND</u></p>	<p>TIP: R-5886</p>	<p>WBS: 34263.1.1</p>
<p>COUNTY: Carteret</p>	<p>DIVISION: 2</p>	
<p>DATE: December 18, 2025</p>		
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<p>LOCATION: NC 58 (Emerald Drive) at Coast Guard Road</p>		
<p>PROJECT: 10 - Improve Intersection</p>		

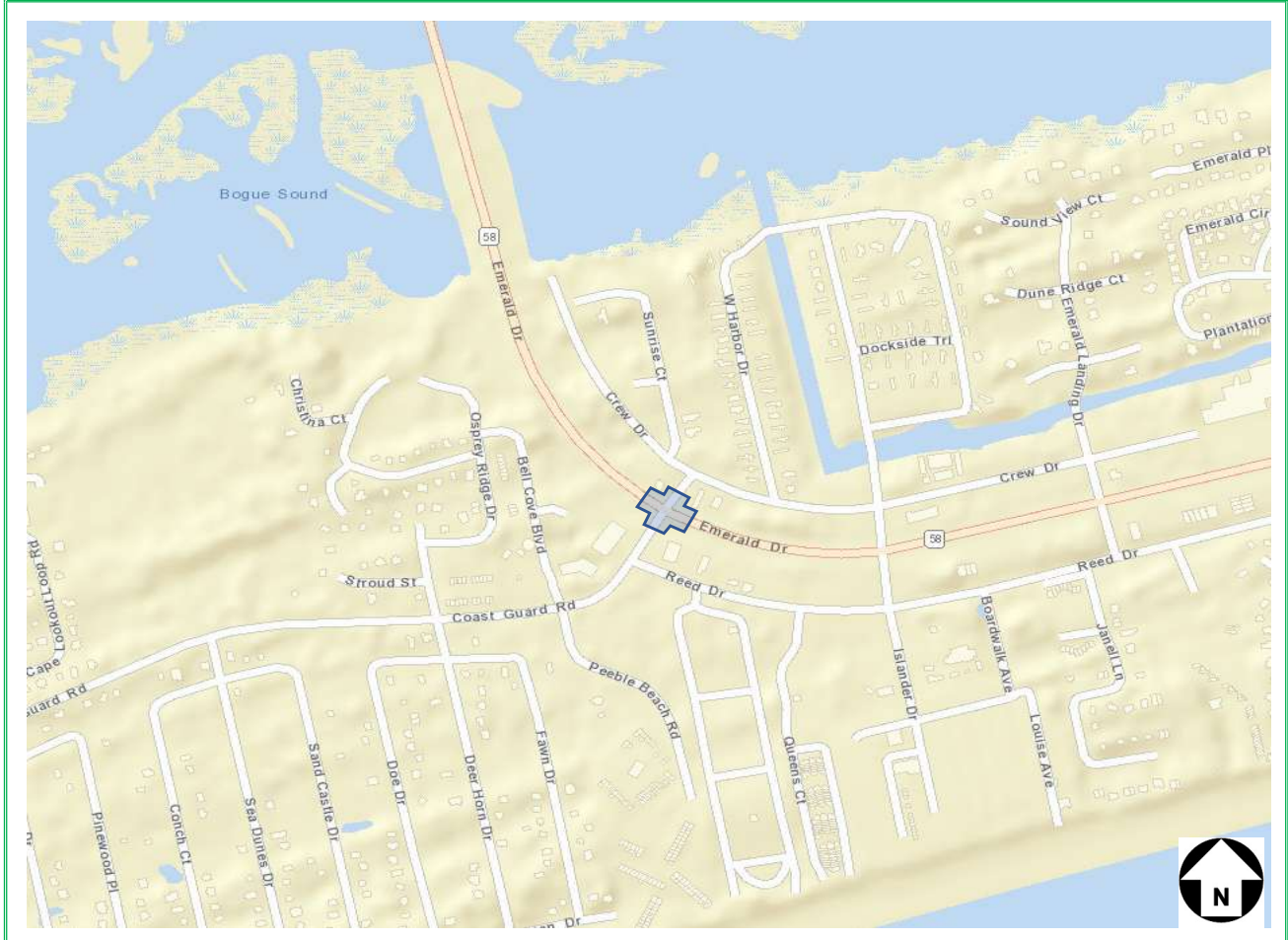


SPOT Volume Report



NC 58 (Emerald Drive) at Coast Guard Road 10 - Improve Intersection

STIP No. R-5886 **SPOT ID:** H250715 **WBS No.** 34263.1.1
Carteret **DIVISION: 2**



PROJECT STUDY AREA

PREPARED BY: Kimley Horn

12/17/2025

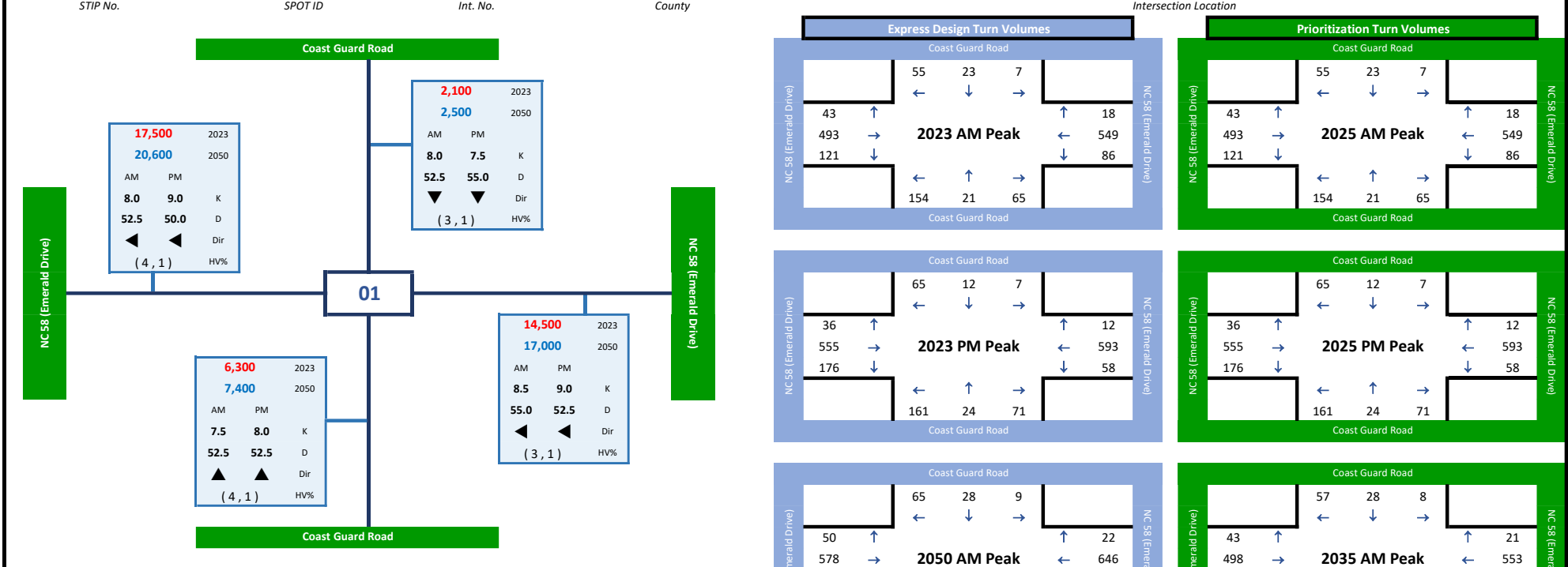


Committed Projects in Study Area

STIP Project and Description: 2026-2035 NCDOT STIP	N/A
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Int. ID	Count ID	Count Date	Intersection	AADT Source	2023 NCDOT AADT Web Map
1	19376	11/18/2025	NC 58 (Emerald Drive) at Coast Guard Road		
Traffic Count Data					
Travel Demand Model Utilized					
Model					
North Carolina Statewide Model (NCSTM)					
Version					
Gen 4.5 (P8)					
BASE YEAR					
2025					
FUTURE YEAR					
2035					
REPORT STATUS					
Final					
CORRIDOR PROJECT					
No					

R-5886	H250715	01	Carteret	NC 58 (Emerald Drive) at Coast Guard Road
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Approach	Road Name	Route Type	No. of Lanes	Facility Type	Functional Class	Capacity	2023 V/C Ratio
North	Coast Guard Road	Local	2	Arterial	Local	15,843	0.13
East	NC 58 (Emerald Drive)	NC	2	Arterial	Arterial	15,843	0.92
South	Coast Guard Road	Local	2	Arterial	Local	15,843	0.40
West	NC 58 (Emerald Drive)	NC	2	Arterial	Arterial	15,843	1.10

Approach	Road Name	Express Design Traffic Volumes			Prioritization Traffic Volumes		
		2023 AADT	2023-2050 CAGR	2050 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	Coast Guard Road	2,100	0.6%	2,500	2,100	1.0%	2,300
East	NC 58 (Emerald Drive)	14,500	0.6%	17,000	14,500	0.2%	14,900
South	Coast Guard Road	6,300	0.6%	7,400	6,300	1.0%	7,000
West	NC 58 (Emerald Drive)	17,500	0.6%	20,600	17,500	0.2%	17,900

Express Design Turn Volumes

Coast Guard Road

NC 58 (Emerald Drive)	55	23	7	NC 58 (Emerald Drive)
43	←	↓	→	↑
493	→	2023 AM Peak		←
121	↓			↓
	←	↑	→	
	154	21	65	

Coast Guard Road

Prioritization Turn Volumes

Coast Guard Road

NC 58 (Emerald Drive)	55	23	7	NC 58 (Emerald Drive)
43	←	↓	→	↑
493	→	2025 AM Peak		←
121	↓			↓
	←	↑	→	
	154	21	65	

Coast Guard Road

Coast Guard Road

NC 58 (Emerald Drive)	65	12	7	NC 58 (Emerald Drive)
36	←	↓	→	↑
555	→	2023 PM Peak		←
176	↓			↓
	←	↑	→	
	161	24	71	

Coast Guard Road

Coast Guard Road

NC 58 (Emerald Drive)	65	12	7	NC 58 (Emerald Drive)
36	←	↓	→	↑
555	→	2025 PM Peak		←
176	↓			↓
	←	↑	→	
	161	24	71	

Coast Guard Road

Coast Guard Road

NC 58 (Emerald Drive)	65	28	9	NC 58 (Emerald Drive)
50	←	↓	→	↑
578	→	2050 AM Peak		←
139	↓			↓
	←	↑	→	
	179	25	80	

Coast Guard Road

Coast Guard Road

NC 58 (Emerald Drive)	57	28	8	NC 58 (Emerald Drive)
43	←	↓	→	↑
498	→	2035 AM Peak		←
126	↓			↓
	←	↑	→	
	163	26	79	

Coast Guard Road

Coast Guard Road

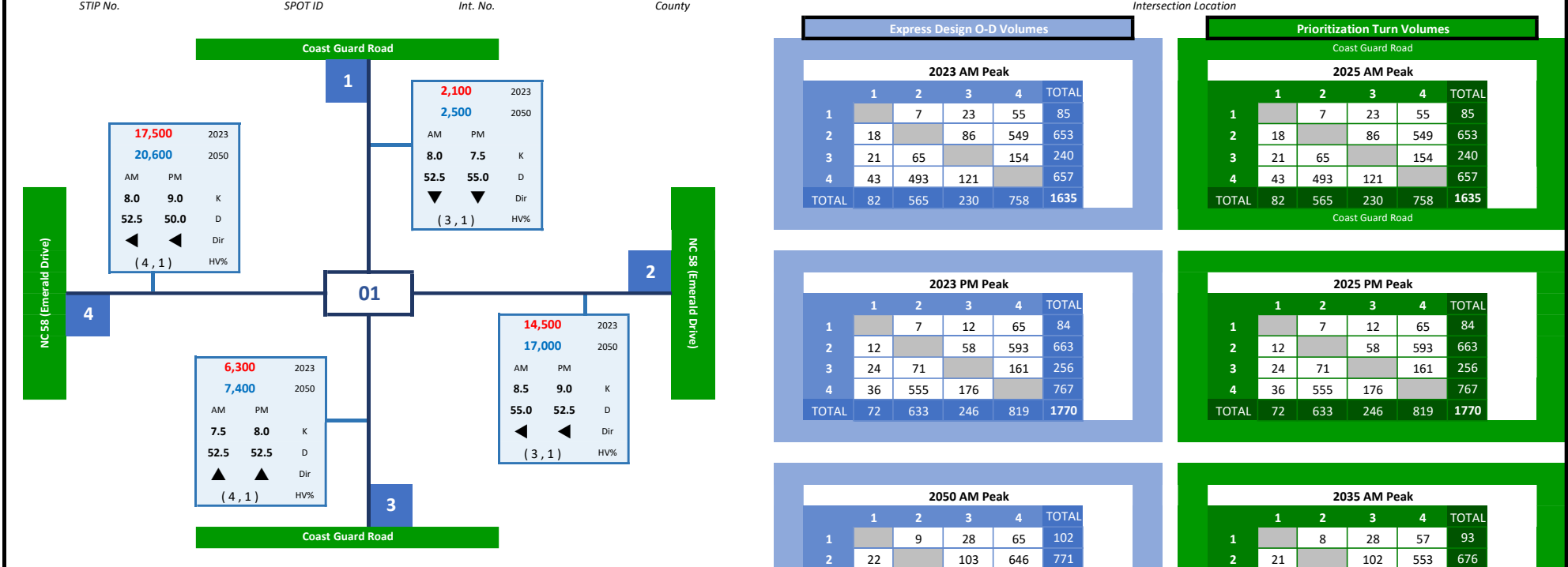
NC 58 (Emerald Drive)	78	14	8	NC 58 (Emerald Drive)
43	←	↓	→	↑
655	→	2050 PM Peak		←
206	↓			↓
	←	↑	→	
	187	29	86	

Coast Guard Road

Coast Guard Road

NC 58 (Emerald Drive)	68	15	9	NC 58 (Emerald Drive)
36	←	↓	→	↑
562	→	2035 PM Peak		←
188	↓			↓
	←	↑	→	
	170	29	86	

Coast Guard Road



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North	Coast Guard Road	Local	2	Arterial	Local	15,843	0.13
East	NC 58 (Emerald Drive)	NC	2	Arterial	Arterial	15,843	0.92
South	Coast Guard Road	Local	2	Arterial	Local	15,843	0.40
West	NC 58 (Emerald Drive)	NC	2	Arterial	Arterial	15,843	1.10

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		2023 AADT	2023-2050 CAGR	2050 AADT	2025 AADT	2025-2035 CAGR	2035 AADT
North	Coast Guard Road	2,100	0.6%	2,500	2,100	1.0%	2,300
East	NC 58 (Emerald Drive)	14,500	0.6%	17,000	14,500	0.2%	14,900
South	Coast Guard Road	6,300	0.6%	7,400	6,300	1.0%	7,000
West	NC 58 (Emerald Drive)	17,500	0.6%	20,600	17,500	0.2%	17,900

Express Design O-D Volumes					
2023 AM Peak					
	1	2	3	4	TOTAL
1		7	23	55	85
2	18		86	549	653
3	21	65		154	240
4	43	493	121		657
TOTAL	82	565	230	758	1635

Express Design O-D Volumes					
2023 PM Peak					
	1	2	3	4	TOTAL
1		7	12	65	84
2	12		58	593	663
3	24	71		161	256
4	36	555	176		767
TOTAL	72	633	246	819	1770

Express Design O-D Volumes					
2050 AM Peak					
	1	2	3	4	TOTAL
1		9	28	65	102
2	22		103	646	771
3	25	80		179	284
4	50	578	139		767
TOTAL	97	667	270	890	1924

Express Design O-D Volumes					
2050 PM Peak					
	1	2	3	4	TOTAL
1		8	14	78	100
2	15		70	692	777
3	29	86		187	302
4	43	655	206		904
TOTAL	87	749	290	957	2083

Prioritization Turn Volumes					
Coast Guard Road					
2025 AM Peak					
	1	2	3	4	TOTAL
1		7	23	55	85
2	18		86	549	653
3	21	65		154	240
4	43	493	121		657
TOTAL	82	565	230	758	1635

Prioritization Turn Volumes					
Coast Guard Road					
2025 PM Peak					
	1	2	3	4	TOTAL
1		7	12	65	84
2	12		58	593	663
3	24	71		161	256
4	36	555	176		767
TOTAL	72	633	246	819	1770

Prioritization Turn Volumes					
Coast Guard Road					
2050 AM Peak					
	1	2	3	4	TOTAL
1		8	28	57	93
2	21		102	553	676
3	26	79		163	268
4	43	498	126		667
TOTAL	90	585	256	773	1704

Prioritization Turn Volumes					
Coast Guard Road					
2050 PM Peak					
	1	2	3	4	TOTAL
1		9	15	68	92
2	15		71	594	680
3	29	86		170	285
4	36	562	188		786
TOTAL	80	657	274	832	1843